

Claim amendments:

1. (Currently Amended) A storage network appliance comprising:
a TCP/IP router for routing block level storage requests through a TCP/IP
network communication medium from a first device coupled to the router to a second
device coupled to the router; and

5 a cache memory coupled to the router for caching storage data blocks accessed by
the block level storage requests,

wherein the cache memory is used by the router to store data blocks exchanged
between the first and second devices through the router, and

10 wherein the cache memory is used to return data blocks from the cache memory
to the first device in response to a received block level storage request directed from the
first device to read data blocks from the second device without forwarding the storage
request to the second device.

2. (Original) The appliance of claim 1 further comprising:

a command and response processor coupled to the router for interpreting block
level storage requests routed through the router and coupled to the cache memory for
caching data identified in the interpreted block level storage requests.

3. (Original) The appliance of claim 2 wherein the block level storage requests are
iSCSI protocol commands and responses.

4. (Original) The appliance of claim 3 wherein the command and response
processor is a SCSI command and response processor.

5. (Original) The appliance of claim 2 wherein the command and response
processor is adapted to snoop the block level storage requests routed by the router.

6. (Original) The appliance of claim 2 wherein the router is adapted to store and
forward received requests.

7. (Original) The appliance of claim 6 wherein the command and response processor is adapted to process received requests while the requests are temporarily stored for forwarding.

8. (Cancelled)

9. (Cancelled)

10. (Original) The appliance of claim 2 wherein the command and response processor is adapted to coalesce multiple block level storage write requests into a coalesced block level storage write request and wherein the router is adapted to forward the coalesced block level write request to a destination device in place of the multiple block level storage write requests.

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11. (Currently Amended) A method operable in a network router comprising the steps of:

receiving a block level storage request from a network communication medium directed through the router from a first device to a second device; and

5 processing the received block level storage request in association with a cache memory local to the router, wherein the processing further comprises:

responsive to receipt of a block level storage request from the first device to return data from the second device, locating data requested by the received block level storage request in the cache memory;

10 returning the located data to a requesting first device in response to locating the requested data; and

conditionally forwarding the received request to the second device only in response to failure to locate the requested data in the cache memory.

12. (Cancelled)

13. (Original) The method of claim 11 further comprising:

coalescing multiple received block level storage requests into a coalesced block level storage request; and

forwarding the coalesced block level storage request to a destination device.

14. (Cancelled)

15. (Currently Amended) An iSCSI router comprising:

[[in]] an inbound network interface for receiving iSCSI storage requests and for returning responses to received iSCSI storage requests;

an outbound network interface for forwarding received iSCSI requests to a destination device and for receiving responses from the destination device;

5 a cache memory; and

a control element coupled to the inbound network interface, coupled to the outbound network interface, and coupled to the cache memory and adapted to process iSCSI requests received on the inbound network interface in association with the cache

10 memory and adapted to selectively forward processed iSCSI requests to a destination device via the outbound network interface,

wherein the cache memory is used by the control element to store data blocks exchanged between a first device coupled to the inbound network interface and a second device coupled to the outbound network interface, and

15 wherein the cache memory is used to return data blocks from the cache memory to the first device in response to a received block level storage request directed from the first device to read data blocks from the second device without forwarding the storage request to the second device..

16. (Cancelled)

17. (Original) The router of claim 15 wherein the control element further comprises:

a request coalescing element for coalescing multiple received requests into a coalesced request,

5 wherein the control element is further adapted to forward the coalesced request to the destination device.

18. (Currently Amended) An improved network router compatible with TCP/IP protocols and adapted for coupling to one or more host systems and one or more iSCSI compatible storage devices, the improvement comprising:

- a SCSI command and response processor within the router to process iSCSI commands and responses forwarded through the router; and
- a cache memory within the router coupled to the SCSI command processor for caching data related to iSCSI commands and responses processed by the SCSI command and response processor,
wherein the SCSI command and response processor is adapted to process iSCSI read requests by first attempting to locate requested data in the cache memory and wherein received iSCSI read requests are forwarded to a storage device only if the requested data is not located by the processor in the cache memory.

19. (Cancelled)

20. (Cancelled)

21. (Currently Amended) The improved router of claim [[19]] 18 wherein the SCSI command and response processor is adapted to process iSCSI write requests by storing the associated write data in the cache memory.

22. (Original) The improved router of claim 21 wherein the SCSI command and response processor is further adapted to coalesce data stored in the cache memory into a larger coalesced write request and is further adapted to route the coalesced write request to the storage device.